









NASA PAYLOADS **Crew Feedback and Status**

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Crew Feedback preflight

- I49/Kimbrough Shane said that all of his payload classes were good. He
 had nothing to add for his payload lessons. The level of training was good,
 there was no duplication of information, it was well laid out, and the lessons
 were short (which he said was good for him because he could focus better
 for a shorter class vs. a longer class). He found the DoD Rodent skills
 class to be especially good and realistic.
- I49/Borisenko Andrey said he hopes they will be able to use what they learned in the payload classes when they get on orbit.
- I49/Ryzhikov Sergey said he would like to see payload tasks in the RO Sims if possible. (For him, there wasn't another sim but it is in work for future cosmonauts.)
- I51/Tikhonov Rodent classes were good (fun). Everything is going well.
 No complaints.
- I51/Vande Hei No complaints, very pleased with classes, classes are well developed. Real testament to the team.



Crew Feedback preflight

- I50/Peggy Whitson:
 - Payload training has been good. However, since payload training has decreased, she
 feels she has lost the big picture on what her specific payload responsibilities are. She
 understands her life science payloads because she has had training on those and she
 has a specific complement. It was explained to her that 80% of the NASA payloads
 are not trained on the ground, therefore they will not show up on the CQRM and will
 not be assigned to a crewmember until the on orbit plan is developed.
 - She mentioned that she would like to understand the science priority for the first several weeks when she gets onboard – specifically for her ops.
 - An idea was discussed to have an overview during the POIC briefing to provide this information. CTC and POD office will look into what can be provided.



Crew Feedback preflight

- I50/Thomas Pesquet:
 - Thomas did not have any comments or recommendations with regard to his payload training. He felt his training was good.
 - He asked where he could find information on the payloads preflight. He was given a link to the science tool box for access to payload information preflight and he was shown where it would be located when he gets on orbit.



- Post Mission Debrief telecom with Kornienko, Kononenko, Padalka, Volkov, and Kelly on April 20, 2016.
 - Conducted at JSC, with MSFC via telecom.
 - Very difficult to hear and understand the answers to the questions, could not understand which crewmember was commenting, others in the room were talking at the same time.
 - Lesson Learned: Send someone from MSFC to JSC when cosmonauts have debriefs.
 - From what we could gather, they said they felt adequately trained and had no training recommendations, but some said additional training would help.
 - They were comfortable using the hardware in the US Segment.
 - Depending on the task, they may speak Russian or English during ops.
 - Crew said they used both English and Russian versions of procedures.
 - First time ops are easier with assistance from USOS crew.
 - Mentioned handover between crewmates is important and should be scheduled.



- Post Mission Debrief with Scott Kelly on June 1, 2016 at MSFC.
 - Scott is not a fan of video only procedures. Watching the video for 5 minutes and then performing the ops did not work well for him. He felt it would be okay as training or refresher but not as operating a procedure because it took time if you wanted to find a particular step.
 - He felt his ground training was pretty good think we are getting there with content and length.
 - Liked the OBTs that he did both payloads and systems.
 - Recommended crew use iPad vs. SSC for procedures, but noted limitations like videos are in a small window. He also had some good ideas: use the iPad to take a picture of what you're working on and it auto-sends to ground with the associated procedure step. This way, ground can see what you're seeing. Or, have the microphone on the iPad to make a verbal comment and it can be sent to the ground.
 - He liked talking directly to the PD for specific payload details rather than through HSV. Overall it is very good, but he noted that comm brevity is important.



- Post Mission Debrief telecom with Kopra and Peake on August 18, 2016.
 - Kopra said he was thankful that the program has figured out you can fly a
 payload and are able to operate it without having been trained the ground. He
 said that with training sometimes being a year in advance they would forget.
 However, he added that they were not over/under trained and that some things
 require training.
 - Kopra also said that we have done a good job at cutting out unnecessary training. Having familiarity with ODF procedure format and opportunities for exposure over time helped him follow the onboard procedures without ODF training. Since Cosmonauts don't have the same exposure with ODF over time, they cannot be as proficient.
 - Because of their overall training, Kopra & Peake were comfortable performing payload ops on items they had not been trained on.
 - Ground training provides you the necessary skills and those skills can be used to operate many payloads.
 - Concerning OBTs, their preference was to do them a day prior to ops. That
 provides time to prepare and see if there are any questions that need to be
 answered. Two days or a week prior, might be too much (might forget).









- Post Mission Debrief telecom with Kopra and Peake on August 18, 2016.
 - For Joint Research, it was noted that it takes longer for a USOS crew to help a RS crew when a product has been translated to Russian or if a product is made specifically for the RS crew – i.e. non-standard for USOS so they don't recognize the product. That is why it is important to train the RS crew and provide opportunity for practice on standard tools, like ODF.
 - For Joint Research, recommended that the USOS do the gather/stow of equipment.



Upcoming Crew post flight debrief

 Jeff Williams will come to MSFC for a payloads debrief on October 20, 2016.